



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

FEBRUARY 5.

The President, Dr. LEIDY, in the chair.

Twenty-seven persons present.

The following papers were presented for publication :—

“Notes on a Collection of Anchovies from Havana and Key West, with an account of a new species, *Stolephorus eurystole*, from Wood’s Holl, Mass.,” by Jos. Swain and Seth E. Meek.

“On a new species of Rotifer, of the Genus *Apsilus*,” by Sara Gwendolen Foulke.

The death of Wm. T. Haines, a member, was announced.

FEBRUARY 12.

Rev. H. C. McCook, D. D., in the chair.

Thirty persons present.

A paper entitled “List of Fishes from Egmont Key, Florida, in the museum of Yale College, with descriptions of two new species,” by David S. Jordan, was presented for publication.

Fresh-water Sponges as improbable causes of the pollution of river-water.—Mr. POTTS reported that on the 9th of February he had visited and partially examined the forebay at Fairmount Water-works, on the Schuylkill River, from which the water had been temporarily withdrawn, with a view to discover the winter condition of the fresh-water sponges and the other inhabitants of that locality. He found far the larger part of the wall surface below the water-line inaccessible on account of a thick deposit of mud upon the bottom, and much water remaining in the forebay. Wherever reached, however, and so far as the eye could detect in other places, it was covered by a mud-colored incrustation of considerable thickness, which a more minute examination showed to be composed almost wholly of the statoblasts and spicules of the sponge *Meyenia Leidyi*. Some few fragments of *Meyenia fluviatilis* and *Spongilla fragilis* were seen, but the first-named was clearly the prevailing species.

A sluiceway which formerly supplied the last of the old “breast wheels” used in pumping into the reservoir, but from which the water had been for many months excluded, was entered and examined. Here the remaining incrustation (much having doubtless crumbled and fallen away) was from one-fourth to one-half

an inch thick, of the appearance of crumbling plaster, and, as in the other cases, it consisted of the sponge before named, with but a small proportion of intruded material.

While considering the effect of the presence of so large a sponge-growth at the very inlet to the supply-pumps, Mr. Potts stated that this particular species was conspicuous among the known North American sponges by its great relative density and the small proportion of its sarcode or flesh. Its decay, therefore, at the termination of its period of summer growth would be a less cause of pollution to the water-supply than that of any other sponge.

Moreover, from recent investigations into the life-history of these low organisms, he was inclined to believe that decay was not the normal or necessary result of the close of each season's growth. The fragile branches of some species inhabiting exposed situations may, of course, be broken off and destroyed while the sarcode still covers them; but in the sessile portions, and in all when sufficiently protected, the cells of the sarcode at the period of full maturity, forsaking their places along the lines of the skeleton framework, gather together by simultaneous amœboid movements into dense groups, where they are soon covered by a tough chitinous "coat," which, in time, generally becomes surrounded by a "crust" of minute granular cells, and armored by a series of protective spicules. These groups are now recognized as the statoblasts, gemmules or winter-eggs of the sponge—eggs only in appearance—in reality the resting spores or protected germs which conserve the life of the individual through the cold and storms of winter, and awake very early in the springtime into new life—yet a continuance only of the same existence which was seen a few months before nestling into this winter's sleep.

If this is the ordinary course with these organisms there seems no reason to regard them as serious causes of the pollution of our streams, though violent freshets before this resting period is reached may tear them to pieces, and their decay may give a temporary taint to the water.

Continuing the narrative of his exploration, Mr. Potts described the iron pipes which had lain for many years upon the bottom of the fore-bay, as covered in some places to the depth of an inch or more, with a crust richly colored by iron-oxide, but principally composed, as were the others, of the spicules and statoblasts of *M. Leidyi*. Upon the surface of this crust in places, he found the remains of large colonies of *Urnatella gracilis* Leidy. In the absence of any positive knowledge of the winter condition of this curious polyp, Mr. Potts had examined with much interest a novel form of statoblast, which was frequent upon the same pieces of sponge; but he was unsuccessful in associating it with the polyzoon. It is most probable that the life is continued as suggested by Dr. Leidy, within the urn-like joints of this crea-

ture, and that they put out buds and a new growth in the spring. To discover if this be the case he had placed some fragments in water, and while awaiting results he had been surprised at the appearance within a few days amongst the fragments of *Urnatella*, of numbers of the recently described chætobranch-worm, *Manayunkia speciosa*, of Leidy, as well as several living cells of a species of *Paludicella*, probably *P. elongata*, of the same author. The persistence and tenacity of life in these apparently delicate creatures, overcoming not only the severity of a hard winter, but an exposure of several days in the open air, were further commented upon.

FEBRUARY 19.

The President, Dr. LEIDY, in the chair.

Thirty-seven members present.

The deaths of Dr. Geo. Engelmann and Prof. Arnold Guyot, correspondents, were announced.

Indian use of Apocynum cannabinum as a textile fibre.—At the meeting of the Botanical Section held on the 18th inst., Mr. THOMAS MEEHAN stated that while it was well known that the fibre of *Apocynum cannabinum* was used by the Eastern Indians in the manufacture of baskets, mats and other articles, he had heard it doubted whether the same plant was used by the Indians in the West. He had interested a lady in Washoe Valley, Western Nevada, to get direct from the Indians of that section stems of the plant used by them. She had done so, and he now exhibited them. They proved to be the same plant, *Apocynum cannabinum*.

The Longevity of Trees.—Professor Sheaffer, of Pottsville, Pa., reading an abstract of Mr. MEEHAN's remarks, in Proceedings of the Academy, had cut and sent for the inspection of members some specimens from Schuylkill county, remarkable for slow growth, of a black oak, *Quercus tinctoria*, in which the annual growths showed in a little over two inches from the centre an average of 36 circles to an inch; one of hemlock spruce, *Abies Canadensis*, 51 to an inch; and one of the common chestnut, *Castanea vesca Americana*, 24 to an inch. Though only four inches in diameter, the oak stem was seventy-six years old; the hemlock one hundred and four years and in diameter four inches; and the chestnut four and a half inches in diameter in sixty years.

With a struggle for life either from poverty of the soil, elevation, or close growth of trees, which the small annual growths